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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/348,852	07/07/1999	HIROSHI MURAKAMI	31050.9US01	5848

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12/23/2003

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EXAMINER

FERRIS III, FRED O

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 12/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/348,852

Applicant(s)

MURAKAMI ET AL.

Examiner

Fred Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-20 is/are allowed.
- 6) ☒ Claim(s) 1-4, 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 16. 6) ☐ Other: _____

DETAILED ACTION

1. *A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9 September 2003 (paper # 19) has been entered. Claims 1-30 are now pending in this application. Claims 1-14 and 21-30 have been rejected by the examiner. Claims 15-20 have now been allowed.*

Response to Arguments

2. *Applicant's arguments filed on 9 September 2003 (paper # 19) have been fully considered.*

Regarding applicant's response to 35 U.S.C. 102(b) rejections: *Applicants have amended claims and presented persuasive arguments. Accordingly, the examiner withdraws the 102(b) rejection in view the amendment to the claims and arguments presented in applicant's amendment filed 9 September 2003 (paper # 19).*

Regarding applicant's response to 35 U.S.C. 103(a) rejections: *Applicant's arguments with respect to claims 1-14 and 21-30 fully have been considered but are moot in view of the new ground(s) of rejection. Please see new 103(a) rejection below.*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-14 and 21-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,812,070 issued to Tagami et al, in view of U.S. patent 6,240,365 issued to Bunn, in further view of U.S. patent number 5,726,885 issued to Klein et al, and in further view of Official Notice.

Independent claims 1, 8, 21, 27 and 29 are drawn to:

A **vehicle sharing system** with:

Multiple **ports at remote locations** (vehicle search group (VSG))

User **interface terminal(s)** at each **port(s)** (fleet requests)

Computer system user (communication) interface:

User request defining first VSG

Allocating a vehicle from VSG responsive to request

Defining a second VSG if first not available

Selecting vehicle for allocation from second VSG

Generating vehicle relocation request (1st to 2nd port)

Transport device for vehicles (tow hitch/bar)

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VSG: **Parking facility** at ports

Vehicles due to arrive

Tow hitch for relocation by single driver & **cycle w carrier bracket**

Attendant **display device**

Regarding independent claims 1, 8, 21, 27 and 29: Tagami discloses a shared vehicle rental system incorporating multiple vehicle groups (VSG's), user terminals, and computer system for resource management and servicing user requests. For example, at column 2, line 24 Tagami recites:

"According to the present invention, there is also provided a **shared vehicle rental system** comprising a plurality of motor vehicles having respective **communication units**, a parking area for a plurality of users to rent motor vehicles therefrom and to return motor vehicles thereto, and a **control center** for supervising the motor vehicles through the communication units. The control center has means for **dividing the users into groups** depending on a **usage time zone** in which the users use the motor vehicles or a direction in which the users move with respect to the parking area, registering the users in the groups, and supervising the motor vehicles and the parking area based on **registration information** of the users and usage **information of the users** which is received through the communication units."

At column 3, line 23 Tagami further recites:

"The control center may recognize the positions of the motor vehicles at all times based on information from GPSs (Global Positioning Systems) carried on the motor vehicles."

At column 4, line 37 Tagami also recites:

"The **control center MC** has a **communication installation A** for transmitting signals to and receiving signals from the communication units 23 of the respective motor vehicles C. The control center MC does various activities including recruiting users of the **shared vehicle rental system** and registering entrants as registered **users in groups** as shown in FIG. 3. FIG. 3 shows **first** and **second groups G1, G2** of registered users."

The examiner notes that the term "vehicle search group VSG" is merely defined as the set of vehicles that may be allocated to a user (specification page 6, line 6) and has, hence, interpreted the term to be functionally equivalent to the parked available motor vehicles disclosed by Tagami. For example, at column 5, line 47 Tagami recites:

*"The computer 60 calls registration information recorded in the control center MC, using the password, and compares the registration information from the control center MC with the registration information recorded on the inserted IC card in a step S2. If the compared pieces of registration information agree with each other, then the computer 60 selects one of the **available motor vehicles C** parked in the storage area 41, and transmits the **registration information** and a leave command from the first communication pole 42 to the **selected motor vehicle C** in a step S3."*

(Also see: Abstract, Summary, CL4-L37-65, CL5-L40-63, CL6-L25, Figs. 4-6)

Tagami does not explicitly teach allocating a vehicle responsive to a user request. (although the examiner believes this process would inherently be part of the information registering process disclosed above)

Bunn discloses allocating a vehicle responsive to a user request.

For example, at column 9, line 22 Bun recites:

*"when the renter **requests** up-dated information, the **local controller** determines whether this is a point of sale request 734. If this is a point of sale request then the local controller initiates a call to the HQ computer to up-date information 736. The information, once up-dated on the **local controller**, is displayed 738 whereby the customer may then select the required service via the keypad 740. Alternately the customer may select the HQ computer to call the service provider."*

(also see: Abstract, Summary of Invention, CL3-L2-CL4-L33, 3, 5-5B)

Tagami further does not explicitly disclose (although the examiner believes it to be inherent) determining vehicle selection, vehicles due to arrive, and vehicle relocation, (i.e. fleet resource management) and return ports at remote locations.

Klein discloses a **vehicle sharing** (hiring) system with numerous **collection** and **return points (ports)** at **remote locations** (**parking facilities**) that contain a **pool of vehicles (VSG)**. The Klien system includes a computer system with **user interface**, **display device** and software programmed with an **intelligent fleet resource management algorithm** for determining **vehicle selection, vehicles due to arrive, and vehicle relocation**. (Background and Summary of Invention, especially CL1-L6-21, CL2-L33-63, CL3-L12, 21, 30, 34, 41, 45 55, CL5-L1, 29, 58, CL6-L46, CL7-L18, CL8-27, Figs. 1-3)

The examiner further notes that, in addition being disclosed in the prior art, the limitations relating to tracking a vehicles arrival, allocation status, parking port, etc. relate to simple techniques for resource allocation and capacity planning (i.e. resource management) that are very well known in the art and commonly practiced by vehicle rental and fleet management systems. Per independent claims 27 and 29: Neither Tagami, Bunn, nor Klein explicitly disclose the use of tow bars, hitch receptacles, or bike carriers. Official Notice is taken that the use of tow bars, hitch receptacles, and bike carriers, is **very well known** in the art and has long been practiced by rental car companies as a method for **relocating vehicles using a single driver**.

It would have been obvious to one of ordinary skill in this art at the time the claimed invention was made, to modify the teachings of Tagami relating to a shared vehicle rental system incorporating multiple vehicle groups, user terminals, and computer system, with the teachings of Bunn relating to allocating a vehicle responsive to a user request, and to further modify the teachings of Tagami with the teachings of

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Klein relating to fleet resource management and return ports at remote locations, and to further incorporate the well known use to tow bars and hitch receptacles, to realize the claimed invention. An obvious motivation exists since, as referenced by prior art, a long felt need exists for an efficient and cost effective way of making vehicles available (Klein, CL8-L50), and because it very well known in the art to use tow bars, hitch receptacles, and bike carriers as a method for relocating vehicles using a single driver.

Regarding dependent claims 2-7, 9-14, 22-26, 28, and 30: This group of claims in merely drawn to limitations relating to interface terminals, vehicle requests, vehicle/user groups, relocation, and allocation and are hence rejected using the same reasoning as previously cited above. Specifically relating to claims 4-6, 11, 12, 25 and 26: Neither Tagami, Bunn, nor Klein explicitly disclose the use of tow bars, hitch receptacles, or bike carriers. Official Notice is taken that the use of tow bars, hitch receptacles, and bike carriers, is very well known in the art and has long been practiced by rental car companies as a method for relocating vehicles using a single driver.

Allowable Subject Matter

4. *Claims 15-20 use "means for" language and are given deference in view of In re Donaldson and interpreted in view of 35 U.S.C. § 112 paragraph 6. The "means for" language and the limitations related thereto of claims 15-20 are interpreted within the scope of enablement as provided within the relative embodiment provided within applicant's specification. In particular, the prior art does not disclose the specific steps outlined in applicants specification relating to the **"means for"** relocating vehicles*

(independent claim 15) from port to port as determined by the computer system after searching the VSG for sufficient SOC to meet user's needs. (see specification page 15, line 5 to page 16, line 24) Claims 16-20 are allowable as being depend from claim 15.

Applicants are also encouraged to amend independent claims 1, 8, 21, 27, and 29 to include "mean for" or "step for" language relating to the limitations for defining a first and second vehicle search group (VSG) (i.e. "means for" defining a first vehicle search group (VSG), etc.) at which time the examiner would favorably consider allowance of the remaining claims.

Conclusion

5. *The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, careful consideration should be given prior to applicant's response to this Office Action.*

U.S. Patent 5,572,430 issued to Murakami et al teaches shared vehicle deployment and reallocation.

U.S. Patent 6,253,980 issued to Murakami et al teaches shared vehicle system and carrying second vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 703-305-9670 and whose normal working hours are 8:30am to 5:00pm Monday to Friday.

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Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 703-305-3900.

The Official Fax Numbers are:

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December 9, 2003


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